

**REMARKS**

The application has been reviewed in light of the Office Action dated March 8, 2007. Claims 1-13 are pending in this application, with claims 1, 7, and 13 being in independent form. No claims have been amended hereby. It is submitted that no new matter has been added and no new issues have been raised by the present Request for Reconsideration.

Applicants would like to thank Examiner for the allowance of claims 1-6 and for the characterization of claims 8 and 11 as containing allowable subject matter.

Claims 7, 10, and 13 were rejected under 35 U.S.C. §103(a) as allegedly unpatentable over U.S. Patent No. 5,796,772 ("Smith") in view of U.S. Patent No. 6,362,762 ("Jensen"). Claim 9 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Smith in view of Jensen and Xiawei Zhu et al., "The RF Module Design for W-CDMA/GSM Dual Band and Dual Mode Handset" State Key Laboratory of Millimeter Waves, Department of Radio Engineering, IEEE 2001 ("Zhu"). Claim 12 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Smith in view of Jensen and U.S. Patent Application Publication No. 2003/0067404 ("Ruha").

Independent claim 7 relates to a multi-mode communication device that comprises a switching means for switching a received analog signal to a delta-sigma modulator in a first mode and to an analog-to-digital converter in a second mode. In the first mode, the output of the delta-sigma modulator is multiplied by filter factors to generate first-mode waveforms. In the second mode, the output of the analog-to-digital converter is multiplied by PN codes to generate second-mode output waveforms.

Smith relates to a dual-mode architecture that has the range and mobility of a traditional cellular phone and the low cost of a microcellular device. In Smith, a dual-mode cordless

telephone has a first mode of operational capabilities that allow for cellular functionality and a second mode which allows for micro-cellular operation.

Smith fails to teach or suggest that in a first mode, a received analog signal is sent to a **delta-sigma modulator** and the output of the delta-sigma modulator is multiplied by **filter factors** to generate first-mode waveforms while in a second mode, a received analog signal is sent to an **analog-to-digital converter** and the output of the analog-to-digital converter is multiplied by **PN codes** to generate second-mode output waveforms.

In fact, Smith fails to identify the use of a delta-sigma modulator at all, let alone its use in the particular manner discussed above. The Office Action merely contends that one skilled in the art would know that a delta-sigma modulator may be used for analog-to-digital conversion. However, without conceding this point, Applicants reiterate that in independent claim 7, it is in the second mode that a received analog signal is sent to an analog-to-digital converter while in the first mode, a received analog signal is sent to a delta-sigma modulator. Accordingly, independent claim 7 draws a distinction between the use of an analog-to-digital converter and a delta-sigma modulator while the Office Action uses these terms interchangeably by relying on information allegedly known to one skilled in the art, but not otherwise substantiated by a cited reference.

Moreover, Smith fails to show that first mode waveforms are generated by multiplying output from a delta-sigma modulator with filter factors while second mode waveforms are generated by multiplying output from an analog-to-digital converter with PN codes. The Office Action alleges that these features, as well as the features above are taught in Smith at col. 6, lines 33 – 35, however, the cited portion of Smith merely holds that, “The transmitter-information means may be embodied as an information device 101. The information device 101 may include

source encoders such as Golay encoders, error correction coding, analog-to-digital converters, etc.” and thus Smith fails to teach or suggest the above-recited claim elements.

Moreover, neither Jensen, Zhu, nor Ruha, alone or taken together, teach or suggest the above claim elements and the Office Action does not allege that they do. Accordingly, independent claim 7, as well as dependent claims 8 – 12 are patentably distinct from the cited art for at least the above reasons.

Similarly, in independent claim 13, when operating in a first mode, an analog signal is sampled in a delta-sigma modulator and the output from the delta-sigma modulator is multiplied by filter factors to generate first-mode waveforms while when operating in a second mode, an analog signal is sampled in an analog-to-digital converter and the output of the analog-to-digital converter is multiplied by PN codes to generate second-mode output waveforms.

Accordingly, for reasons at least similar to the reasons discussed above with respect to independent claim 7, independent claim 13 is patentably distinct from the cited art.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Favorable reconsideration is earnestly solicited.

Respectfully submitted,

Dated: \_\_\_\_\_

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By: \_\_\_\_\_

Joseph B. Gross  
Reg. No. 57,109  
Attorney for Applicants

F. CHAU & ASSOCIATES, LLC  
130 Woodbury Road  
Woodbury, NY 11797  
Telephone: (516) 692-8888  
Facsimile: (516) 692-8889